# Flow-Max<sup>®</sup> Industrial Filters

Heavy-duty filter housings made to ASME code specifications.

### **Typical filtration applications**

- Pre-filtration for RO systems
- Drinking water filtration
- Surface water filtration
- Boilers & cooling towers
- Process water
- Ground water
- Municipal water
- Oils and hydraulic fluids

### **Materials and options**

- 304, 316 and carbon steel
- · Coatings for sea water filtration
- Duplex systems
- 300 psi pressure rating
- Electro-polishing
- Optional ASME U-Stamp available

### Flow-Max® industrial filter housings using 20" cartridges

| Model Number | Round | Standard<br>Cartridge | Max. Flow With<br>Pleated Cartridges<br>(GPM) | Max. Flow With<br>Depth Cartridges<br>(GPM) | Material | Pipe Size | Drain<br>Size | Ship.<br>Weight<br>(Ibs.) |
|--------------|-------|-----------------------|---|---|----------|-----------|---------------|---------------------------|
| FMIF3X2      | 3     | 20"                   | 60  | 30  | Specify  | 2" NPT    | 3/4"          | 45                        |
| FMIF6X2      | 6     | 20"                   | 120   | 60  | Specify  | 2" flange | 3/4"          | 55                        |

### Flow-Max® industrial filter housings using 30" cartridges

| Model Number | Round | Standard<br>Cartridge | Max. Flow With<br>Pleated Cartridges<br>(GPM) | Max. Flow With<br>Depth Cartridges<br>(GPM) | Material | Pipe Size | Drain<br>Size | Ship.<br>Weight<br>(Ibs.) |
|--------------|-------|-----------------------|---|---|----------|-----------|---------------|---------------------------|
| FMIF3X3      | 3     | 30"                   | 90  | 45  | Specify  | 2" NPT    | 3/4"          | 50                        |
| FMIF6X3      | 6     | 30"                   | 180   | 90  | Specify  | 2" flange | 3/4"          | 65                        |
| FMIF12X3     | 12    | 30"                   | 350   | 175   | Specify  | 3" flange | 3/4"          | 225                       |
| FMIF20X3     | 20    | 30"                   | 600   | 300   | Specify  | 4" flange | 3/4"          | 200                       |
| FMIF26X3     | 26    | 30"                   | 800   | 400   | Specify  | 6" flange | 1-1/2"        | 495                       |
| FMIF32X3     | 32    | 30"                   | 1,000   | 500   | Specify  | 6" flange | 1-1/2"        | 950                       |

### Flow-Max<sup>®</sup> industrial filter housings using 40" cartridges

| Model Number | Round | Standard<br>Cartridge | Max. Flow With<br>Pleated Cartridges<br>(GPM) | Max. Flow With<br>Depth Cartridges<br>(GPM) | Material | Pipe Size  | Drain<br>Size | Ship.<br>Weight<br>(Ibs.) |
|--------------|-------|-----------------------|---|---|----------|------------|---------------|---------------------------|
| FMIF3X4      | 3     | 40"                   | 120   | 60  | Specify  | 2" NPT     | 3/4"          | 55                        |
| FMIF6X4      | 6     | 40"                   | 175   | 120   | Specify  | 2" flange  | 3/4"          | 75                        |
| FMIF12X4     | 12    | 40"                   | 300   | 250   | Specify  | 3" flange  | 3/4"          | 225                       |
| FMIF20X4     | 20    | 40"                   | 550   | 425   | Specify  | 4" flange  | 1-1/2"        | 275                       |
| FMIF26X4     | 26    | 40"                   | 750   | 575   | Specify  | 6" flange  | 1-1/2"        | 340                       |
| FMIF32X4     | 32    | 40"                   | 1,000   | 720   | Specify  | 6" flange  | 1-1/2"        | 410                       |
| FMIF52X4     | 52    | 40"                   | 1,500   | 1,050                                       | Specify  | 8" flange  | 1-1/2"        | 480                       |
| FMIF80X4     | 80    | 40"                   | 2,000   | 1,600                                       | Specify  | 8" flange  | 1-1/2"        | 800                       |
| FMIF116X4    | 116   | 40"                   | 2,500   | 2,000                                       | Specify  | 10" flange | 1-1/2"        | 1,000                     |
| FMIF144X4    | 144   | 40"                   | 3,000   | 2,500                                       | Specify  | 12" flange | 1-1/2"        | 1,500                     |

**Note:** Industrial filter housings listed above include swing-bolt and eye nut lid closure (davit for lid lift on 12 rounds and above), seals for DOE cartridges and elements with 222 o-ring end caps, without the need for special adapters, and they accept cartridges from 2-1/2" to 2-3/4" OD. Housings are rated for pressures to 150 psi (10 bar) and temperatures to 250°F (121°C). Standard gaskets are Buna-N. For carbon steel housings add "CS" at end of product code; add "304" for 304 stainless steel; add "316" for 316 stainless steel and add "ASME" for "u" stamp. Flow rates are based on water filtration, and they are for guidelines only. Actual flow rates should be based on micron rating, solids content and a number of other factors. Shipping weights are approximate.

# Flow-Max<sup>®</sup> In-Line Filters

Single cartridge, metal filter housings for in-line installations.

# **Applications**

- High temperatures
- High pressures
- Aggressive chemicals
- Water
- Oils
- Coolants
- Plating solutions
- Solvents
- Lubricants
- Hydraulic fluids

# Models

- Nickel plated brass heads with 304 stainless sumps and T-Handles for easy sump removal
- 304 stainless steel for DOE cartridges
- 316 stainless steel for 222 o-ring end caps
- Carbon steel

# Specifications

- Rated for pressures to 250 PSI (17.5 bar)
- Rated for temperatures to 250°F (121°C)
- Buna-N seals are standard. Optional seals available

### Models with nickel plated brass heads, 304 stainless steel sumps and T-Handles

|                 | ······································ |              |                      |        |                |                           |  |  |
|-----------------|--|--------------|----------------------|--------|----------------|---------------------------|--|--|
| Model Number    | Cartridge<br>Length                    | Pipe<br>Size | No. Of<br>Cartridges | Sump   | Head           | Shipping<br>Weight (Ibs.) |  |  |
| FM10-BN-304-34T | 10" *                                  | 3/4"         | 1                    | 304 SS | Nickel / Brass | 7                         |  |  |
| FM20-BN-304-34T | 20"                                    | 3/4"         | 1                    | 304 SS | Nickel / Brass | 10                        |  |  |
| FM30-BN-304-34T | 30"                                    | 3/4"         | 1                    | 304 SS | Nickel / Brass | 12                        |  |  |

\*Accepts 10" and 9-7/8" wound or 9-3/4" cartridges with rigid end caps (pleated). Rated for pressures to 250 psi and temperatures to 250°F

# Models with 304 stainless steel heads and 304 sumps

| Model Number | Cartridge<br>Length | Pipe<br>Size | No. Of<br>Cartridges | Sump   | Head   | Shipping<br>Weight (Ibs.) |
|--------------|---------------------|--------------|----------------------|--------|--------|---------------------------|
| FM10-304-34  | 10" *               | 3/4"         | 1                    | 304 SS | 304 SS | 7                         |
| FM20-304-34  | 20"                 | 3/4"         | 1                    | 304 SS | 304 SS | 10                        |
| FM30-304-34  | 30"                 | 3/4"         | 1                    | 304 SS | 304 SS | 12                        |

\*Accepts 10" and 9-7/8" wound or 9-3/4" cartridges with rigid end caps (pleated). Rated for pressures to 250 psi and temperatures to 250°F

#### Models with 316 stainless steel construction for cartridges with 222 o-ring end caps

| Model Number    | Cartridge<br>Length | Pipe<br>Size | No. Of<br>Cartridges | Sump   | Head   | Shipping<br>Weight (lbs.) |
|-----------------|---------------------|--------------|----------------------|--------|--------|---------------------------|
| FM10-316-34-222 | 10"*                | 3/4"         | 1                    | 316 SS | 316 SS | 7                         |
| FM20-316-1-222  | 20"                 | 1"           | 1                    | 316 SS | 316 SS | 10                        |

Filter housings listed directly above are rated for pressures to 250 psi and temperatures to 250°F.

### Models with carbon steel sumps and cast iron heads

| Model Number | Cartridge<br>Length | Pipe<br>Size | No. Of<br>Cartridges | Sump   | Head      | Shipping<br>Weight (Ibs.) |
|--------------|---------------------|--------------|----------------------|--------|-----------|---------------------------|
| FM10-CS-34   | 10"*                | 3/4"         | 1                    | Carbon | Cast iron | 7                         |
| FM20-CS-34   | 20"                 | 3/4"         | 1                    | Carbon | Cast iron | 10                        |
| FM30-CS-34   | 30"                 | 3/4"         | 1                    | Carbon | Cast iron | 12                        |
| FM40-CS-1    | 40"                 | 1"           | 1                    | Carbon | Cast iron | 12                        |

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\*Accepts 10" and 9-7/8" wound or 9-3/4" cartridges with rigid end caps (pleated). Rated for pressures to 250 psi and temperatures to 250°F



**BIGBBBA** 



# **Big-Bubba non-metallic filter housings**

Big-Bubba® filters are bigger and better than other non-metallic filter housings because pricing is based on their economical plastic construction, while the pressure rating is nearly equal to stainless steel!

#### Features

- Made of glass-reinforced polypropylene for greater strength and chemical resistance.
- Will not dent, rust, chip or corrode.
- Filters accept single cartridge for convenience.
- Swing-bolt lid closure is easy, safe & secure.
- Pressure release for safety.
- Cartridge "lock" adapter to hold cartridge in place.
- Double o-rings on cartridges for superior sealing.
- Two outlets to allow piping from the same direction.

#### **Applications**

- Industrial applications for chemical compatibility.
- Pre-filtration for reverse osmosis.
- Community water systems for cyst reduction.
- Sea water filtration (for non corrosion).
- Whole house filtration for chlorine, taste, odor and sediment reduction.

U.S. and foreign patents pending.

### **Specifications**

| Material, body (all wetted surfaces)<br>Material, cartridge end caps | Glass reinforced PP<br>Glass reinforced PP<br>304SS |
|--|---|
|  |   |
|  | 304\$\$   |
| Material, swing bolts  | 00100   |
| O-Ring   | EPDM  |
| Lid closure  | Swing bolt  |
| Pipe fittings (two inlets and one outlet)                            | 2" slip   |
| Overall height   | 40"   |
| Width (vessel OD)  | 12"   |
| Maximum flow rate  | 150 GPM (36M <sup>3</sup> /hr)                      |
| Maximum temperature (housing)  | 175°F (80°C) @80 psi                                |
| Maximum working pressure   | 125 psi (8.75 bar)                                  |
| Burst test   | 300 psi   |
| Cycles test (0 to 150 psi)   | 100,000   |

Note: Please refer to pressure drop chart to determine flow rate, based on micron rating, solids content and other factors.

### **Big-Bubba filter housings**

| Product Code | Max.<br>Flow Rate* | Pipe Fitting | Shipping Weight<br>(Ibs.) | Carton Size     | No. / Carton |
|--------------|--------------------|--------------|---------------------------|-----------------|--------------|
| BBH-150      | 150 GPM            | 2" SLIP      | 47                        | 16" x 16" x 41" | 1            |

\* With pleated cartridges.

# Big Bubba® Filter Cartridges

Pleated, depth & activated carbon cartridges with o-rings seals for superior performance.



### Pleated for more surface area

Pleated cartridges are recommended for typical water filtration applications to remove sediment, hard solids and when high efficiency filtration is required. We offer a wide range of micron ratings, including one micron absolute for surface water filtration to reduce Giardia Cysts and Cryptosporidium.

### Pleated Big-Bubba® cartridges

| Product code | Micron     | Media Type     | Seal           | Number / Carton |
|--------------|------------|----------------|----------------|-----------------|
| BBC-150-P1A  | 1 Absolute | Polypropylene* | Double o-rings | 1               |
| BBC-150-P1   | 1          | Polypropylene  | Double o-rings | 1               |
| BBC-150-P5   | 5          | Polypropylene  | Double o-rings | 1               |
| BBC-150-P20  | 20         | Polyester      | Double o-rings | 1               |
| BBC-150-P50  | 50         | Polyester      | Double o-rings | 1               |

\* Five ply for greater removal efficiencies.

### **Depth cartridges**

Select depth cartridges to remove sediment, gelatinous substances and when chemical compatibility is an issue. Big-Bubba depth cartridges are 100% polypropylene with EPDM o-rings.

### Depth Big-Bubba<sup>®</sup> cartridges

| Product code | Micron | Media Type    | Seal           | Number / Carton |
|--------------|--------|---------------|----------------|-----------------|
| BBC-150-D1   | 1      | Polypropylene | Double o-rings | 1               |
| BBC-150-D5   | 5      | Polypropylene | Double o-rings | 1               |
| BBC-150-D20  | 20     | Polypropylene | Double o-rings | 1               |
| BBC-150-D50  | 50     | Polypropylene | Double o-rings | 1               |



### Activated carbon cartridges

Activated carbon Big-Bubba cartridges are ideal for whole house filtration and other applications to reduce chlorine, tastes, odors and sediment from water. Activated carbon cartridges are rated at five micron, nominal.

# Activated carbon Big-Bubba® cartridges

| Product code | Micron    | Media Type       | Seal           | Number / Carton |
|--------------|-----------|------------------|----------------|-----------------|
| BBC-150-AC   | 5 Nominal | Activated carbon | Double o-rings | 1               |

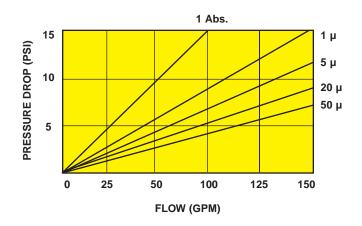


# **Big-Bubba® Filters & Cartridges**

Technical information and spare parts.

#### Low pressure drop

Big-Bubba filter housings are designed to minimize pressure drop, by using 2" pipe fittings and large diameter center tubes for Big-Bubba filter cartridges. (See chart at right for pressure drop data using pleated cartridges.)



### **Big-Bubba cartridge specifications (Model BBC-150)**

|                         | Pleated          | Depth         | Activated Carbon            |
|-------------------------|------------------|---------------|-----------------------------|
| Media                   | PP PP            |               | Pulverized activated carbon |
| End caps                | PP + FG          | PP + FG       | PP                          |
| Center tubes            | PP               | PP            | PP                          |
| Maximum flow rate (GPM) | 150              | 100           | 10                          |
| Maximum temperature     | 175°F (80°C)     | 175°F (80°C)  | 140°F (60°C)                |
| Maximum ∆P (psi)        | 30               | 40            | 30                          |
| Chemical resistance     | Excellent        | Excellent     | Not a factor (for water)    |
| Length (media)          | 26-1/4"          | 26-1/4"       | 26-1/4"                     |
| O-rings (dual)          | EPDM             | EPDM          | EPDM                        |
| Shipping weight (lbs.)  | 5                | 5             | 7                           |
| Carton dimensions       | 7" x 7" x 31"    | 7" x 7" x 31" | 7" x 7" x 31"               |
| Micron ratings          | 1A, 1, 5, 20, 50 | 1, 5, 20, 50  | 5                           |

Note: Flow rates are based on each specific application, micron rating, solids content and a number of other factors. End user should consider these factors when selecting the filter housing (or number of filter housings) needed for their particular requirement.

### **Big-Bubba filter housing spare parts**

| Part Number   | Description                                   |  |  |
|---------------|---|--|--|
| BB-LID        | Lid   |  |  |
| BB-PR         | Pressure release button, washer and screw.    |  |  |
| PG15L25       | Pressure gauge                                |  |  |
| BB-EYEBOLT    | Eye bolt                                      |  |  |
| BB-STUD       | Stud for eye bolt                             |  |  |
| BB-POST       | Post for eye bolt                             |  |  |
| BB-WINGNUT    | Wing nut                                      |  |  |
| BB-WASHER     | Washer for lid closure                        |  |  |
| BB-LW         | Lock washer for lid closure                   |  |  |
| BB-ORING-E    | O-ring for lid closure, EPDM                  |  |  |
| BB-ORING-V    | O-ring for lid closure, Viton                 |  |  |
| BB-COUPLER    | Coupler (two piece)                           |  |  |
| BB-COUPLER-OR | O-ring for coupler and plug                   |  |  |
| BB-PLUG       | Plug for second outlet                        |  |  |
| DRAINPLUG     | Drain plug with o-ring                        |  |  |
| BB-CA         | Cartridge adapter (goes in bottom of housing) |  |  |
| BB-CASCREWS   | Screws for cartridge adapter                  |  |  |
| BB-SC         | Shipping carton with corrugated inserts       |  |  |

# Flow-Max<sup>®</sup> Industrial Filters For 40" Big-Bubba<sup>®</sup> Cartridges

Heavy-duty filter housings available in 304 and 316 stainless steel.

# **Typical filtration applications**

- Pre-filtration for RO systems
- Drinking water filtration
- Surface water filtration
- Cooling towers
- Process water
- Ground water
- Municipal water
- Oils and hydraulic fluids





BBH40-SS316-NPT2 (With 2" NPT fittings in 304SS) BBH40-SS316-FF3 (With 3" flange fittings in 316SS)

# Flow-Max<sup>®</sup> industrial filter housings for 40" Big-Bubba cartridges

| Model Number     | Round | Standard<br>Cartridges | Max. Flow<br>Pleated<br>Cartridges<br>(GPM) | Max. Flow<br>Depth<br>Cartridge<br>(GPM) | Material | Pipe Size | Drain<br>Size | Ship.<br>Weight<br>(Ibs.) |
|------------------|-------|------------------------|---|--|----------|-----------|---------------|---------------------------|
| BBH40-SS304-NPT2 | 1     | BB 40"                 | 200   | 175                                      | SS304    | 2" NPT    | 3/4"          | 100                       |
| BBH40-SS316-FF3  | 1     | BB 40"                 | 250   | 200                                      | SS316    | 3" flange | 3/4"          | 100                       |

Note: Flow rates are for guidelines only. Actual flow rates are based on micron rating, solids content and other factors.

### Pleated cartridges for more surface area

Pleated cartridges are recommended for typical water filtration applications to remove sediment, hard solids and when high efficiency filtration is required. We offer a wide range of micron ratings, including one micron absolute for surface water filtration to reduce Giardia Cysts and Cryptosporidium.

### 40 Pleated Big-Bubba® cartridges

| Product code | Micron     | Media Type     | Seal          | Number / Carton |
|--------------|------------|----------------|---------------|-----------------|
| BBC-40-P1A   | 1 Absolute | Polypropylene* | Double o-ring | 1               |
| BBC-40-P1    | 1          | Polypropylene  | Double o-ring | 1               |
| BBC-40-P5    | 5          | Polypropylene  | Double o-ring | 1               |
| BBC-40-P20   | 20         | Polyester      | Double o-ring | 1               |
| BBC-40-P50   | 50         | Polyester      | Double o-ring | 1               |

\* Five ply for greater removal efficiencies.

### 40 Depth Big-Bubba® cartridges

| Product code | Micron | Media Type    | Seal          | Number / Carton |
|--------------|--------|---------------|---------------|-----------------|
| BBC-40-D1    | 1      | Polypropylene | Double o-ring | 1               |
| BBC-40-D5    | 5      | Polypropylene | Double o-ring | 1               |
| BBC-40-D20   | 20     | Polypropylene | Double o-ring | 1               |
| BBC-40-D50   | 50     | Polypropylene | Double o-ring | 1               |

\*Notes: Cartridge o-rings are EPDM. Cartridge end caps have o-rings for superior sealing and cartridges lock in place for greater security.